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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,008	09/27/2005	Thomas Sorensen	009992.00003	1392

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EXAMINER

NGUYEN, VINH P

ART UNIT	PAPER NUMBER
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2829

DATE MAILED: 05/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/551,008

Applicant(s)

SORENSEN, THOMAS

Examiner

VINH P. NGUYEN

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-12 and 14 is/are rejected.
- 7) ☒ Claim(s) 13, 15-25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/25/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2829

1. Claims 10-25 are objected to because of the following informalities:

In claim 10, it is unclear where a notional circle is from and how it is formed.

In claims 10, 12-13, 18, 20 it is unclear what is meant by "turns area product".

In claims 14, 22, it is unclear what "conductive tracks on the mother board" comprise of.

Are they shown in any of drawings?

In claim 18, it is unclear how the fifth and sixth coil means are interrelated and associated with the first, second, third and fourth coil means in claim 10. Furthermore, it is unclear where a notional circle is from and how it is formed.

The dependent claims not specifically address share the same indefiniteness as they depend from rejected base claims.

Appropriate correction is required.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 10-12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Sorenson et al (Pat # 5,652,506).

As to claim 10. Sorenson et al disclose an apparatus for measuring AC current in a cable as shown in figures 9-10 having a first coil means (30) with its axis tangential to the a notional circle of the cable (20), a second coil means (300) with its axis extending radially of the circle of

the cable (20), a third coil means (340) with its axis extending radially of the circle of the cable (20), fourth coil means (34) with its axis tangential to the notational circle of the cable (20) such that the first and the third coil means forming a first pair of coil means and the second and fourth means forming a second pair of coil means and both of first and second pairs of coil means are mounted on a support means ("50" shown in figure 11), means (conductive conductors) for connecting the first and second coil means in series in anti phase and the third and fourth coil means in series in anti phase and means (86,90,92) for deriving the alternating current in the conductor .

As to claim 11, it appears that each pair of orthogonal coil means has a substantially identical pair of orthogonal coil means located symmetrically on the diametrically opposite side of the center of the first notional circle and having the same orientation as its symmetrical counterpart.

As to claim 12, it appears that all the coil means have substantially the same turns-area product.

As to claim 14, Sorenson et al disclose first and second coil means (30,300,340',34',30',300',340,34,)is formed as conductive coil forming tracks on at least one insulating substrate (52',54') as shown in figure 13 and the support means/housing (50) is an insulating motherboard for connected to the substrates.


4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

De Buda (Pat # 6,965,225) discloses coreless current sensor.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH P. NGUYEN whose telephone number is 571-272-1964. The examiner can normally be reached on 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WAEL FAHMY can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


VINH P NGUYEN
Primary Examiner
Art Unit 2829

05/08/06